UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 January 2004</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>18-37</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>18-27 and 33-37</u> is/are rejected.
7)☐ Claim(s) <u>28-32</u> is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>30 January 2004</u> is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☒ All b)☐ Some * c)☐ None of:
      1.☒ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date 07/06/200_.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Objection

1.   The abstract of the disclosure is objected to because the following minor informality. The last

sentence should read, "The invention is particularly *applicable*..." instead of "application". Correction is

required. See MPEP § 608.01(b).

2.   The specification of the disclosure is objected to because the following minor informality.

Paragraph [0044] should refer to Figure 3 (block 22) and not Figure 1. Correction is required. See MPEP

§ 608.01(b).

Nonstatutory Double Patenting Rejection

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.
Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3.   Claims 23,25, and 36 are rejected on the ground of nonstatutory obviousness-type double

patenting as being unpatentable over claim 6 and 12 of U.S. Patent No. 7,123,929.

4.   Both sets of claims, application claims 23,25 and patent claim 6 and application claim 36 and

patent claim 12 teach, respectively, of a device and computer product with one correlator; detector or unit

for energy determination; and processor.

5.   Although the conflicting claims are not identical, they are not patentably distinct from each other

because the instant application claims 23,25 merely broadens the scope of claim 6 of patent 7,123,929 by

eliminating the element of one correlator configured for correlating the received signal; first codes of

synchroniza tion codes searched for one maximum energy value, and processor module performs fine

slot synchronization on the remaining codes.

6.   In a similar manner the instant application claim 36 merely broadens the scope of claim 12 of

patent 7,123,929 by eliminating the element of one correlator configured for correlating the received

signal; first codes of synchronization codes searched for one maximum energy value, and processor

module performs fine slot synchronization on the remaining codes.

7.   It has been held that omission of an element and its function is an obvious expedient if the

remaining elements perform the same function as before. In re Karlson, 136 USPQ 184 (CCPA). Also

note Ex parte Rainu, 1698 USPQ 375 (Bd. App. 1969); the omission of a reference element whose

function is not needed would be obvious to one skilled in the art.

8.   The claimed language of claims 23,25 and 36 merely broadens the claimed subject matter of

claims 6 and 12 of the patent, respectively.

Claim Rejections - 35 USC § 102

9.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis

for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

10.   Claims 18 –27 and 33 - 37 are rejected under 35 U.S.C. 102(e) in view of Avellone (U.S. Patent

7,123,929).

11.   With regards to Claims 18 and 36, Avellone teaches of a computer-readable medium having

computer-executable instructions method and a cellular communications method for a cellular

communications system using a synchronization codes where during a first time interval, performing slot

synchronization using one correlator to correlate a received signal with synchronization codes in a

primary sequence, corresponding synchronization values are generated; and during a second time interval,

performing frame synchronization and cell codegroup identification using one correlator to correlate the

received signal with synchronization codes in a secondary sequence to generate corresponding

synchronization values. (1: [0032-0047] read steps 1 coarse and 2 fine).

12.   Regarding Claim 19, Avellone teaches enabling one correlator by generating an enable signal

during the second time interval. (5:[0015 - 0020]).

13.   With regards to Claim 20, 24, and 37, Avellone further teaches of arranging the secondary

sequence into a first and second portion. (4: [0030 - 0042]) and providing the first portion to the first filter

and the second portion to the second filter. (4: [0042 - 0045], 5: [0015-0020] and Figure 3, reference

numeral 111 and 117).

14.   With regards to Claim 21, Avellone teaches switching from the correlation of one

synchronization code in the secondary sequence to another by changing values of the second portion of

the secondary sequence. (5:[0005-0010]).

15.   Regarding Claim 22, Avellone teaches where the primary sequence has weights associated and

changing the signs on at least one of these weights switch from the primary sequence to the first portion

of the secondary sequence. (1: [0060] – 2[0020]).

16.   Regarding Claim 23, Avellone teaches of a cellular communications device for a cellular

communications system using synchronization codes comprised of one correlator for correlating a

received signal with synchronization codes in a primary sequence during a first time interval that

generates corresponding synchronization values, and for correlating the received signal with

synchronization codes in a secondary sequence during a second time interval that generates corresponding

synchronization values and a processor for performing slot synchronization, frame synchronization, and

cell codegroup identification based upon the corresponding synchronization values.(3:[0018] and 8:
[0030-0068]).

17.   In reference to Claim 25 and 26, Avellone teaches of a cellular communications device for a

cellular communications system using a synchronization codes with one correlator for correlating a

received signal and synchronization codes in a primary sequence for performing slot synchronization on a

primary channel and for correlating the received signal and synchronization codes in a secondary

sequence for obtaining corresponding values; (1: [0033-0047], Figure 3, reference numeral 110 and 111);

a detector for determining at least one maximum value from among the corresponding values and

identifying a number of the synchronization codes (Figure 3, reference numeral 114); a processor for

determining the frame synchronization and for identifying the codegroup based upon the number of

synchronization. (Figure 3, reference numeral 116); and a controller for generating at least one enabling

signal for controlling switching of said at least one correlator between the primary sequence and the

secondary sequence. (Figure 3, reference numeral 116).

18.   With reference to Claim 27, Avellone teaches of one correlator comprises a first matched filter

and a second matched filter connected in series. (Figure 3, reference numerals 110 and 111).

19.   Regarding Claims 33 - 35, Avellone teaches of a device where the received signal complies with

the CDMA/3GPP TDD and FDD standards. (1: [0059-0065]) and UMTS, CDMA2000, IS95, and

WBCDMA standards. (Abstract).

Allowable Subject Matter

20.   Claims 28 – 32 are objected to as being dependent upon a rejected base claim, but would be

allowable if rewritten in independent form including all of the limitations of the base claim and any

intervening claims.

21.   Regarding Claims 28 – 32, though prior art teaches a second filter, no references found teach of

masking circuits connected downstream of second filters arranged either in series or parallel to the output

of a second filter or a code generator that cause the respective weights of the masking circuits to change.

Conclusion

22.   Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Henry Baron whose telephone number is (571) 270-1748. The examiner can normally be

reached on 7:30 AM to 5:00 PM E.S.T. Monday to Friday.

23.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

24.   Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer

Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR

CANADA) or 571-272-1000.

HB

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